

DESYATCHIKOV, B.A., otv.red.; KAGANOVSKIY, A.G., red.; SYRKIN-SHKLOVSKIY,
L.Yo., red.

[Problems in the economics of the cotton-cleaning industry in
Uzbekistan] Voprosy ekonomiki khlopkoochistitel'noi pro-
myshlennosti Uzbekistana. Tashkent, Akad.nauk Uzbekskoi SSR.
In-t ekonomiki, 1957. 320 p. (MIRA 12:11)
(Uzbekistan--Cotton gins and ginning--Costs)

SYRKIN-SHKLOVSKIY, M. Ye.

AUTHOR: Sergeyev, A.S., Docent

105-58-5-26/28

TITLE: Dissertations (Dissertatsii)

PERIODICAL: Elektrichestvo, 1958: Nr 5, pp. 93-95 (USSR)

ABSTRACT: For the Degree of Candidate of Technical Sciences:
At the Yerevan Polytechnic Institute imeni Marks (Yerevanskiy politekhnicheskiy institut im. Marksa):
A.Kh.Saradzhev on January 9, 1946 "Supplies for the Requirements of Automatized Hydraulic Power Plants". Official opponents: Professor A.Ya.Ter-Khachaturov and N.V.Gabashvili, Docent, Candidate of Technical Sciences.
At the Polytechnic Institute of Belorussia imeni Stalin (Belorusskiy politekhnicheskiy institut im. Stalina):
Ya.Yu.Slepyan on March 27, 1953 "Drying of Power Transformers by the Method of Losses in the Case of Electric Networks in Rural Districts". Official opponents: L.Ye.Ebin, Professor, Doctor of Technical Sciences and A.I.Sobolev, Docent, Candidate of Technical Sciences.
V.P.Krasin on May 29, 1953 "The Automatic Re-Establishment of Connection in Electric Networks and Plants of Mineral Oil Fields

Card 1/4

Dissertations

105-58-5-26/28

ly 2-6 kV voltage". Official opponents: I.I.Greben', Professor, Doctor of Technical Sciences and A.I.Rutskiy, Docent, Candidate of Technical Sciences.

At the Institute for Power Engineering AS Uzbek SSR (Institut energetiki AN Uzbekskoy SSR):

M.Ye.Syrkin-Shklovskiy on November 5, 1947 "Some Problems Connected with the Theory of Resonance in Multiphase Circuits".

Official opponents: N.N.Shchedrin, Professor, Doctor of Technical Sciences and G.R.Rakhimov, Docent, Candidate of Technical Sciences.

A.A.Inogamov on December 29, 1949 "The Investigation of Asymmetric Modes of Operation of Three-Phase Transformers". Official opponents:

N.N.Shchedrin, Professor, Doctor of Technical Sciences and M.Z.Khamudkhanov, Docent, Candidate of Technical Sciences.

I.A.Reyneke on December 29, 1949 "Investigation of the Basic Properties of Independent Invertors in Connection with the Problems of D.C.Transformation". Official opponents: V.P.Zakharov, Doctor of Technical Sciences and Rakhimov, G.R., Docent, Candidate of Technical Sciences.

Card 2/4

Dissertations

105-58-5-26/28

E.G.Faynshteyn on May 6, 1950 "Taking Account of the Influence Exercised by Rectification Load when Calculating Asymmetry Modes of Operations in Energy Systems". Official opponents: V.F. Zakharov, Professor, Doctor of Technical Sciences and G.R.Rakhimov, Docent, Candidate of Technical Sciences.
S.M.Timofeyev on February 21, 1953 "Investigation of an Electric Device for the Automation Control of Rotational Speed in Water Turbines with a Sensitive Element Operation According to The Electrodynamical Principle". Official opponents: N.N.Shchedrin, Professor, Doctor of Technical Sciences and M.Z.Khamudkhanov, Docent, Candidate of Technioal Sciences.
L.M.Rotenburg on February 21, 1953 "Experimental Investigation of Steel Lines and the Analytical Calculation of Short-Circuit Currents in Complicated Networks with Steel Lines". Official opponents: N.N.Shchedrin, Professor, Doctor of Technical Sciences and G.R.Rakhimov, Docent, Candidate of Technical Sciences.

Card 3/4

Dissertations

105-58-5-26/28

N.A.Troitskiy on September 26, 1953 "The Basic Properties of an Invertor with Additional Controlling Electromotive Force and Open Transformer Triangle". Official opponents: V.P.Zakharov, Professor, Doctor of Technical Sciences, M.Z.Khamudkhanov, Docent, Candidate of Technical Sciences and I.A.Reyneke, Docent, Candidate of Technical Sciences.

AVAILABLE: Library of Congress

1. Scientific reports--USSR
2. Power plants--Equipment
3. Electrical networks--USSR
4. Electrical equipment--Properties

Card 4/4

GRUBEV, D.I., doktor sel'skokhoz. nauk; KOTOV, P.Ya., nauchnyy sotrudnik;
RODIONOVSKIY, M.S., nauchnyy sotrudnik; SYRKIN-SHELOVSKIY,
Ye A., nauchnyy sotrudnik; UNANOV, G.S., nauchnyy sotrudnik

Use of the tissue preparation VNIIMP-3 in the fattening of
swines. Trudy VNIIMP no.15:13-19 '63. (MIRA 17:5)

PLYATSKOVSKIY, O.A., kand.tekhn.nauk; LIVSHITS, A.S., kand.tekhn.nauk;
Prinimali uchastiye: AGAYEV, Kh.A.; EL'BERT, S.M.; BRAYLOVSKIY, V.P.;
SYRKINA, A.F.; ORLOV, S.T.

Selection of wear resistant steels for mandrels of continuous and
three-roll pipe mills. Biul.nauch.-tekhn.inform.VNITI no.4/5: 51-61
'58. (MIRA 15:1)

(Pipe mills)

SYRKINA, D. G.

Treatment of dysentery with synthomycin. Klin. med., Moskva
30 no.3:75-77 Mar 1952, (CJML 22:2)

1. Tashkent.

SHEVELVA, A.P., glavnyy vrach; SYRKINA, D.G.

Source of dysentery infection of infants. Zhur.mikrobiol.epid.i immun. no.9:
37-39 S '53. (MLRA 6:11)

1. Tashkentskaya gorodskaya infektsionnaya bol'nitsa. (Dysentery)

SYRKINA, D.G. (Tashkent)

Effect of furacillin on the rate of healing of the mucous membranes
of the large intestines in dysentery. Klin.med. 34 no.4:90 Ap '56.
(MLRA 10:1)

1. Iz 5-y Tashkentskoy infektsionnoy bol'nitsy.
(FURALDEHYDE) (DYSENTERY) (MUCOUS MEMBRANE)

SYRKINA, G. YE.

USSR/Medicine - Shock

Nov/Dec 1947

Medicine - Tissue, Respiration

"The Question of the Amount of Oxygen Consumed by Tissues During the Early Stages of Shock," A. M. Charnyy, P. Ye. Syrkina, G. Ye. Syrkina, S. E. Krasovitskaya, Lab Pathol Physiol, Cent Inst for Improvement of Physicians, 6 pp

"Arkhir Patolog" No 6

Studies conducted to determine three main points: 1) dynamics of oxygen and carbonic acid in subcutaneous gas bubbles in normal animals, 2) dynamics of oxygen and carbonic acid during early stages of shock, and 3) amount of oxygen consumed by tissues during early stages of shock, following application of oxygen-poor mixture. Speed of diffusion of gas bubbles injected subcutaneously determined during various stages of shock. Submitted, 23 Nov 1947. Deputy of Laboratory: Prof A. M. Charnyy. Director of Institute: V. F. Lebedeva.

PA 53768

ARDAJEVA, A.; SYRKINA, I.

Plastic trays for meat chops. Mias.ind. SSSR 31 no.6:48 '60.

(MIRA 13:12)

(Meat industry—Equipment and supplies)

MARTYNOV, Yu.M.; SYRKINA, I.G.

Solubility of ferric chloride and antimony trichloride in

CCl_4 , SiCl_4 , SnCl_4 . Zhur.neorg.khim. 10 no.4:943-945 Ap '65.
(MIRA 1846)

MARTINOV, Yu.M.; SYRKINA, I.G.

Relation between solubility and adsorption of partially soluble
substances in a nonelectrolyte solution. Zhur. fiz. khim. 39 no.3:
584-587 Mr '65. (MIRA 18:7)

GYPKINA, K.

"The Process of Polymerization in Electrical Discharges," Dok. AN, 26, No. 5,
1940. Mor. Lab. Catalysis, Inst. Chem. Phys., Leningrad, -1940-.

SHULIN, N. N.

"Investigation of the Possibility of Utilizing the Chemical Energy of Wood in the Future
Generator of the Central Scientific Research Boiler and Turbine Institute (P. 171.)"
Zhurnal Tekhn. Fiz., Vol. 29, No. 1, p. 171, 1959. Distribution (Referatnyi
Zhurnal--1959, Moscow, No. 2, Jan 59)

TO: CIA, 1. 1. 1. 1. 1. 1.

SYRKINA KID

✓ 2425. RESULTS OF INITIAL TESTS OF FIRST INDUSTRIAL PLANT FOR USING WOOD FOR POWER AND CHEMICAL PURPOSES IN COMBINATION. Syrkina, E.D. (Moscow: Mashgiz, 1954. "Furnace Installations (Topchnye Ustroistva)", Ed. A.A. Kanaev, Tekhn. book 26, 256pp., 76-102). An illustrated description and operating results are given for a plant in which 34 tons/h of waste wood are distilled in the upper part of a shaft and the charcoal burned below. Some of the volatile products pass through a vertical grate of water tubes to heat a water tube boiler and some travel towards and into a plant for separation into acid, tar and gas. The flue gases from the boiler are used for predrying the wood. Satisfactory operation was achieved, though the chemical side needed further development. (Bzh/02).

SYRKINA, K.D., kandidat tekhnicheskikh nauk.

Operational data on the first industrial furnace unit designed for
the complete chemical and energy utilization of wood. [Trudy]

TSKTI 26:76-102 '54.

(MLRA 8:2)

(Power plants) (Wood as fuel)

S.I.R. I.N.A.; R.D.

✓ 714. EXPERIENCE WITH COMBINED STEAM GENERATION AND CHEMICAL UTILIZATION
OF WOOD WASTES. Pomerantsev, V.V., Sirkina, K.D., Liverovskii, A.A. and

4

possibilities of the application of this method in industry. The installation
of the furnace-gas producer unit for combined operation while slightly

This
method
will help
At the same
investigation of
rs.

KORCHUNOV, Yu.N.; SYRKINA, K.D.; TYUL'PANOV, R.S.

Experimental study of the operation of the distillation shaft of gas producers designed by the Central Boiler and Turbine Institute.
Gidroliz. i lesokhim.prom. 11 no.8: 4-6 ' 58. (MIRA 11:12)

1. TSentral'nyy nauchno-issledovatel'skiy kotloturbinnyy institut.
(Gas producers)

KATSNEL'SON, Boris Davidovich; KORCHUNOV, Yuriy Nikolayevich; LIVEROVSKIY, Aleksey Alekseyevich; POMERANTSEV, Viktor Vladimirovich, doktor tekhn.nauk, prof.; ~~STANKINA, Lseriya Dmitriyevna~~; TISHCHENKO, Dmitriy Vyacheslavovich; TSATSKA, Elio Markovich; SHMULEVSKAYA, Esfir' Ionovna; POMERANTSEV, V.V., red.; ZHITNIKOVA, O.S., tekhn. red.

[Layer methods of the use of fuel as a source of power and chemicals] Sloevye metody energokhimicheskogo ispol'zovaniia topliv. [By] B.D.Katsnel'son i dr. Moskva, Gosenergoizdat, 1962. 186 p. (MIRA 15:9)

(Fuel) (Chemicals)

111

Carbohydrate metabolism of the brain at the early shock stage. A. M. Charnyi, P. K. Syrkina and S. K. Krasovitskaya. *Byull. Eksp. Biol. Med.* 13, No. 5/6, 17-21(1942).—In normal dogs glycogen and sugar are retained by brain tissue and utilized by it. Metrazole shock does not essentially change this activity. Both insulin and metrazole shocks are assoc. with definite decrease of glycogen content in the brain; apparently, this is due to increased utilization rate of the stored carbohydrates. G. M. Kosolapoff

COMMON ELEMENTS																										COMMON VARIANTS INDEX																									
PROCESSES AND PROPERTIES INDEX																										COMMON VARIANTS INDEX																									
<p>Consumption of O by the cerebrum in toxic shock. A. M. Charnyi and P. E. Syrkina. <i>Byull. Ekspil. Biol. Med.</i> 13, No. 5/6, 13-16(1942).--In healthy dogs the O absorption in the brain is lower than in the muscle tissues. In early period of shock (histamine, peptone, insulin or metrazole) the brain O consumption rapidly rises, with increased formation of CO₂. G. M. Kosolapoff</p>																																																			
<p>ASIA SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																																																			
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1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
<p>ca</p> <p>116</p> <p>Processes and Properties Index</p> <p>Glycogen in the organs during the early stage of shock. A. M. Charnyi, P. E. Syrkina, and S. E. Krasovitskaya (Kafedry Patologicheskoi Fiziologii Tsentral'noi Inst. Usovershenyvaniya Vrachel, Moscow). <i>Byull. Eksp. Biol. Med.</i> 18, No. 3, 38-41 (1944); cf. <i>C.A.</i> 35, 4310P. — In dogs varying in wt. from 5.7 to 15.5 kg. shock was induced by intravenous administration of histamine, peptone, cardiazole, and insulin after 20-hr. fasting. Glycogen in the organs was detd. by Pfäffer's colorimetric method, 45 min. after the shock. In all cases there was a transfer of glycogen from the liver to the muscles. The most distinct shock was produced by histamine, which also caused the greatest accumulation of glycogen in the muscle and the greatest decrease of glycogen in the liver. The shock produced by peptone and insulin was less distinct and the transfer of glycogen from the liver to the muscles was less pronounced. This transfer was least in cardiazole shock. In the convulsive period of cardiazole shock, glycogen is used up by the muscles. J. Davidson</p>																																																			
<p>ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION</p> <p>SECTION SYMBOLS</p> <p>SECTION SYMBOLS</p>																																																			

SYRKINA, P. YE.

"The Cure of Oxyhemoglobin Dissociation in Toxic Fever," Farmakol. i Toxicol.,
9, No. 4, 1946. Ch., Lab. Physiology, Central Inst. Advanced Training for Physicians, -1946

SYRKINA, P. YE.

USSR/Medicine - Shock

Nov/Dec 1947

Medicine - Tissue, Respiration

"The Question of the Amount of Oxygen Consumed by Tissues During the Early Stages of Shock," A. M. Charnyy, P. Ye. Syrkina, G. Ye. Syrkina, S. E. Krasovitskaya, Lab Pathol Physiol, Cent Inst for Improvement of Physicians, 6 pp

"Arkhir Patolog" No 6

Studies conducted to determine three main points: 1) dynamics of oxygen and carbonic acid in subcutaneous gas bubbles in normal animals, 2) dynamics of oxygen and carbonic acid during early stages of shock, and 3) amount of oxygen consumed by tissues during early stages of shock, following application of oxygen-poor mixture. Speed of diffusion of gas bubbles injected subcutaneously determined during various stages of shock. Submitted, 23 Nov 1947. Deputy of Laboratory: Prof A. M. Charnyy. Director of Institute: V. P. Lebedeva.

PA 53T68

SYRKINA, P. Ye.

KRASOVITSKAYA, S.Ye.; SYRKINA, P.Ye.; SCHNITZER, I.S.; SHAPIRO, S.M.

Anoxia syndrome in hypertonia. Ter.arkh. 22 no.2:8-13 Mr-Apr '50.
(GIML 19:3)

1. Of the Department for the Therapy of Internal Diseases (Head -- Prof. M.S.Vovsi, Major General Medical Corps, Active Member of the Academy of Medical Sciences) and of the Department of Pathological Physiology (Head -- Prof. A.M.Charnyy), both of the Central Institute for the Advanced Training of Physicians.

SYRKINA, P. Ye.

"Data on the Question of the Role of Anoxia in the Development of Toxic Pulmonary Edema." Sub 26 Jun 51, Central Inst for the Advanced Training of Physicians.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

Syrkina, P. E.

62
Spectrographic determination of silicon in the blood.
P. B. Syrkina. *Gigiena i Sanit.* 1934, No. 6, 45-7. — A detn.
of blood Si, giving results within 10% is described. This
employs the 2510.1- and 2881.5-A. lines of Si; the upper
electrode is solid Cu, the lower one is a thin Cu tube through
which is fed the test soln. by means of a capillary tube and
under slight pressure. The background of Fe lines is pro-
duced by solns. of $K_2Fe(CN)_6$, which is used for the accurate
location of Si lines. The actual method depends on the
formation of Si spectrum on excitation of specimen in a con-
densed spark with an Fe spectrum background. The cali-
bration curve is prepd. from pure $K_2SiO_3 \cdot H_2O$.
G. M. Kozolapoff

SYRKINA, P.Ye; RASHEVSKAYA, A.M.

Dissociation curves of oxyhemoglobin in certain occupational diseases of the lung. Terap. arkh. 26 no.3:67-73 My-Je '54.

(MLRA 7:9)

1. Iz kafedry patologicheskoy fiziologii (zav. prof. A.M.Charnyy)
i kafedry professional'nykh bolezney (zav. prof. S.M.Genkin)
TSentral'nogo instituta usovershenstvovaniya vrachey.

(HEMOGLOBIN

*oxyhemoglobin, dissociation curves in occup. pulm. dis.)
(LUNGS, diseases,

*occup., oxyhemoglobin dissociation curves in)
(OCCUPATIONAL DISEASES,

*lung dis., oxyhemoglobin dissociation curves in)

SYRKINA, P.Ye.

[Gas analysis in medical practice; a manual for clinicians and
experimenters] Gazovyi analiz v meditsinskoj praktike; posobie
dlia klinitsistov i skperimentatorov. Moskva, Medgiz, 1956.
221 p. (MLRA 10:4)

(GASES—ANALYSIS) (PHYSIOLOGICAL CHEMISTRY)

ARDAJEVA, A.N.; KIPNIS, F.B.; SYRKINA, R.A.

Developing new types of containers and container materials
based on the use of plastics. Trudy NIL Tary no.4:108-119
'60. (MIRA 14:12)

(Container industry)
(Plastics)

SYRKINA, R.L.

Use of electric anesthesia and electrically induced sleep under
experimental conditions and in the surgical clinic. Trudy 1-go MMI
3:154-156 '57. (MIRA 14:5)
(ELECTRIC ANESTHESIA) (SLEEP--THERAPEUTIC USE)

BYELMA 2.4

PA 17T31

USSR/Medicine - Malaria
Medicine - Complement Fixation

May/Jun 1947

"The Complement Fixation Reaction in Malaria,"
S. E. Sirkina, Sector of Experimental Malaria
and Medical Protozoology of the Institute of
Malaria and Medical Parasitology of the Academy
of Medical Sciences, USSR, 6 pp

"Meditsinskaya Parazitologiya" No 3

Clinical data, with tabular presentation, to the
effect that the largest number of positive
reactions was noted in the investigation of
serums received at the end of an attack, regard-
less of the presence of parasites in the blood.

17T31

SYRKINA, V.Ye.

Factual data to support a psychology course. Vop. psikhol.
2 no.4:144-153 J1-Ag '56. (MLBA 9:10)

(Psychology--Study and teaching)

SYRKINA, V.Ye.

Formation of cognitive interests in children ("Cognitive interests
and conditions for their formation in childhood" by L.I.Bozhovich.
Reviewed by V.E.Syrkina). Vop,psikhol. 2 no.5:176-180 S-0 '56.
(Learning, Psychology of) (MLRA 10:1)
(Bozhovich, L.I.)

SYRRENA, Ye. B.
CIRKINA, E.B.

Mobile form of organic substances in the peats of the Latvian S.S.R. Latvijas P.S.R. Zinātnu Akad. Vēstis '49, No.10, 59-63. (MLRA 4:1)
(CA 47 no.21:11625 '53)

SIRKINA, Ye. V.

CIRKINA, E.B.

Characterization of organic matter in soils of Latvian S.S.R. Latvijas P.S.R.
Zinātņu Akad. Vēstis '51, 41-7. (MLRA 5:10)
(CA 47 no.21:11625 '53)

SYRKINA, S.A.

PP

Morphological alterations in blood elements under the influence of antimalarial chemotherapeutic preparations and related compounds. Sh. D. Moshkovskii and S. A. Syrkina. *Med. Parazit. Parazit. Diseases* (U. S. S. R.) 7: 280-284 (1978) (English, 308) (RIS). - Of 32 compds. studied, certain members of the acridine series provoked the appearance of characteristic basophilic inclusion bodies in the blood cells of mice and birds. The ability to provoke the appearance of these bodies showed a marked parallelism with the antimalarial effectiveness of the drugs. Antimalarials of the quinoline series and derivs. of benzothiazole, phenanthroline and C₆H₄, with side chains similar to those of the acridine series, but having no effect on avian malaria, did not possess this property. S. A. Karjala

AS - 51.4 - METACROPAL LITERATURE CLASSIFICATION

BYRKINA, S. A.

"Tests of the Antimalarial Effectiveness of Paludrine on Siskins and Lennets Infected With Plasmodium relictum", Med. Paraz. i Paraz. Bolez., Vol. 17, No. 3, pp 231-33, 1948.

SYRKINA, S.A.

Investigation of the effect of chemotherapy in sporozoite
infections with Plasmodium gallinaceum. Med. paraz. i paraz. bol.
24 no.2:155-159 Ap-Je '55. (MLRA 8:10)

1. Iz sektora eksperimental'noy malyarii i meditsinskoy protozoo-
logii Instituta Malyarii, meditsinskoy parazitologii i gel'minto-
logii Ministerstva zdravookhraneniya SSSR (dir. instituta - prof.
P.G.Sergiyev, zav. sektorom, - prof. Sh.D. Moshkovskiy)
(MALARIA, experimental,
gallinaceum. in chicks, eff. of antimalarials)

SYRKINA-KRYGLYAK, S.A.

A study on the antimalarial effect of some alkaloids in relation to *Plasmodium gallinaceum* and *Plasmodium berghei*. [with summary in English]. Med.paraz. i paraz.bol. 26 no.1:54-58 Jan '57.

(MLRA 10:6)

1. Iz otdela farmakologii Vsesoyuznogo nauchno-issledovatel'skogo instituta lekarstvennykh i aromaticeskikh rasteniy (dir. instituta N.Ya.Itskov, zav. otdelom - prof. A.D.Turova)

(ALKALOIDS, eff.)

Hydrangea hortensis, antimalarial eff.)

(ANTIMALARIALS

Hydrangea hortensis alkaloids)

(PLANTS

Hydrangea hortensis alkaloids, antimalarial eff.)

VERMEL' Ye.M.; SYRKINA-KRUGLIAK, S.A.

Antineoplastic activity of the alkaloid febrifugin in experiments
on animals. Vop. onk. 6 no.7:56-61 Je '60. (MIRA 14:4)
(CYTOTOXIC DRUGS) (ANTIPYRETICS)

VERMEL', Ye.M.; SYRKINA-KRUGLYAK, S.A.

Contact method of selection of antineoplastic preparations
(on cells of ascites tumors). Vop.onk. 7 no.8:73-82 '61.

(MIRA 15:1)

1. Iz Vsesoyuznogo nauchno-issledovatel'skogo instituta lekarst-
vennykh i aromaticeskikh rasteniy (dir. - D.Ya. Itskov).
(CYTOTOXIC DRUGS)

L 35751-66 RPT(m)/RPT(t)/ETI IJ'(c) JD

ACC NR: AP6011418

SOURCE CODE: UR/0202/66/000/002/0035/0039

AUTHOR: Sukhanov, S.; Arustamova, M. V.; Syrkina, V. F.

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B

ORG: Physico-Technical Institute, AN TurkmSSR (Fiziko-tekhnicheskij institut Turkmensoy SSR)

TITLE: InSb magnetoresistive sensors

SOURCE: AN TurkmSSR. Izvestiya. Seriya fiziko-tekhnicheskikh, khimicheskikh i geologicheskikh nauk, no. 2, 1966, 35-39

TOPIC TAGS: magnetoresistance, sensor, transducer

ABSTRACT: The results of an experimental investigation of five InSb magnetoresistive sensors of various sizes and shapes (disk, square, rectangle) are reported; temperature range +20 +100C; supply, ac 1000 cps. A $\Delta \rho / \rho_0 = f(H)$ plot shows that the Carbineau disk has maximum resistance variation. A plot of

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UDC: 621.382.2

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AP6011418

$\Delta\varphi/\varphi_0$ vs. temperature is also shown. Some results are held doubtful because of possible specimen contamination in the course of the raster-making operation. It is proven that a rectangular sensor has maximum sensitivity and that the sensitivity increases with (a) better suppression of E_x by the raster, (b) smaller raster interval, and (c) sharper raster face. Magnetoresistive sensors are held suitable for use in magnetometers, level gages, pressure gages, encoders, etc. Orig. art. has: 3 figures and 1 table.

SUB CODE: 09 / SUBM DATE: 03Dec65 / ORIG REF: 003 / OTH REF: 001

ms
Card 2/2

5.451000

25(5),5(1)

AUTHORS:

Vaynshteyn, B.I., Breger, A.Kh.,
Syrkus, N.P.

S/064/59/000/07/002/035
B005/B123

TITLE:

Computation of a Radiation-chemical Apparatus With a Strong
Gamma Radiation Source for the Oxidation of Benzene to Phenol

PERIODICAL:

Khimicheskaya promyshlennost', 1959, Nr 7, pp 560-565 (USSR)

ABSTRACT:

A radiation-chemical process which could reach practical importance, is the direct oxidation of benzene to phenol with oxygen, in the presence of products of water radiolysis (Refs 1-3). Under certain technological conditions stated in the paper, this process becomes a chain reaction. The yield then amounts to 30-60 molecules per 100 ev absorbed energy. The technological scheme for carrying out this oxidation is described in publications (Ref 3). The authors of the present paper calculated the capacity of radiation-chemical apparatus of various constructions that work with intensive γ -rays. The computations were made for γ -sources from Co^{60} preparations with a total activity of $\sim 10^6$ g-equivalent radium or from the fuel elements of a reactor, type VVR-Ts with a thermal power of 10 Mw. The capacity of such an apparatus is computed from

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Computation of a Radiation-chemical Apparatus
With a Strong Gamma Radiation Source for the
Oxidation of Benzene to Phenol

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S/064/59/000/07/002/035
B005/B123

the formula: $Q = K \frac{wGM}{N} \eta$ (Q = capacity of apparatus in kg per hour; K = coefficient considering the dimensions of the apparatus; w = dose rate of the source of γ -radiation in watts; G = radiation-chemical yield (number of molecules per 100 ev absorbed energy); M = molecular weight of the product in g/mol; N = Avogadro number; η efficiency of the radiation-chemical apparatus (proportion of dose rate of γ -radiation that is absorbed by the chemical system, to the dose rate that is supplied by the source). For phenol it results for $G = 30$:

$Q = 1.05 \cdot 10^{-3} w \eta$. The computations made are described in detail. Detailed data of the construction of radiation-chemical apparatus and the optimum dimensions of the radiation source are given. Figure 1 shows schematic cross sections through some possible variants of a radiation-chemical apparatus for the oxidation of benzene to phenol. Table 1 gives the working characteristics for various variants of such radiation-chemical apparatus, where Co^{60} -preparations or the fuel elements of the VVR-Ts reactor are used as radiation source. Table 2 shows the

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Computation of a Radiation-chemical Apparatus
With a Strong Gamma Radiation Source for the
Oxidation of Benzene to Phenol

S/064/59/000/07/002/035
B005/B123

accessible doses of γ -radiation of a source consisting of all fuel elements of the VVR-Ts reactor. Table 3 shows the relations between the capacity Q and $T = \bar{t}$ (T = working time of the fuel elements in the reactor, \bar{t} = time of cooling). According to calculations of the authors the yearly production of phenol in one of the apparatus described, with a radiation-chemical yield of $G = 60$ molecules per 100 ev in a reactor with the thermal power of 1000 Mw, amounts to about 10,000 t. In the present paper a previous article of the authors is referred to that was submitted to the konferentsiya po mirnomu ispol'zovaniyu atomnoy energii (Conference on the Peaceful Uses of Atomic Energy), held in Tashkent from September 28 to October 3, 1959. There are 8 figures, 3 tables, and 8 references, 7 of which are Soviet.

Card 3/3

AUTHORS: Syrkus, N. P., Breger, A. Kh.,
Vaynshteyn, B. I.

S/064/59/000/08/001/021
B115/B017

TITLE: The Fundamental Technological Characteristics of Apparatus for
Carrying out Radiochemical Processes (Mainly for the Polymerization
of Ethylene), on an Industrial Scale

PERIODICAL: Khimicheskaya promyshlennost', 1959, Nr 8, pp 647-652 (USSR)

ABSTRACT: In the present paper the first attempt of a general consideration
of the most important technological characteristics of a device
for carrying out radiochemical processes is described by the
example of a spherical apparatus. Besides, the technological char-
acteristics of an apparatus used for radiochemical polymerization of
ethylene were calculated. The efficiency of a spherical appa-
ratus with a radius r and a monochromatic gamma radiation point
source in the center of the sphere with an energy of q curies was
calculated, and a formula was deduced. The method used to deter-
mine the energy of the absorbed gamma rays was employed for calcu-
lation which had been suggested at the Conference for the Peace-
ful Uses of Atomic Energy in Tashkent from September 28 to October
3, 1959. A diagram of the dependence of the function $[(1 - \epsilon)^{\alpha}]^{\alpha}$
 $\kappa(\gamma, r, \epsilon)$ on z at different values of the parameter α (1.5, 2.0 and

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The Fundamental Technological Characteristics of
Apparatus for Carrying Out Radiochemical Processes
(Mainly for the Polymerization of Ethylene) on an
Industrial Scale

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2.5) is given (Fig 1), where ε is a constant which depends on the conditions of the process ($0 \leq \varepsilon < 1$), γ the factor of the electron transformation, $\kappa(\gamma r, \varepsilon) = \int_0^{\gamma r} \exp[-(1 - \varepsilon)\gamma \cdot \rho] \rho^{2\varepsilon} \cdot d\rho$ with ρ

the distance of any point in the apparatus from the center, $z = (1 - \varepsilon)\gamma r$ and $\alpha = 2\varepsilon + 1$. In the following also the efficiency of an infinitely large apparatus ($Q\infty$) with the same radiation source is computed. Also formulas for the computation of the specific efficiency and for the computation of the radius of the spherical layer is deduced. The energetic and the material useful coefficient for the apparatus given were computed, and it was found that in general the energetic useful coefficient is no unambiguous criterion for the efficiency of the apparatus. The technological characteristics of a cylindrical apparatus for radiochemical polymerization of ethylene (with Co^{60} as central radiation source) at 200 atm and 25° were then calculated. Diagrams of the distribution of the activity of the radiation dose in the apparatus (Fig 2), of the dependence of efficiency of the polymerisation apparatus with

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The Fundamental Technological Characteristics of
Apparatus for Carrying out Radiochemical Processes
(Mainly for the Polymerization of Ethylene) on an
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gamma-ray sources of different relative activity (with respect to 1-11,500 curie Co^{60}) on the radius of the apparatus (Fig 3), of the specific and weight efficiency of the apparatus (Fig 4), and of the distribution of the useful factor in the apparatus (Fig 5) are mentioned. The curves in figure 5 show that the apparatus for radiochemical polymerization of ethylene under given polymerization conditions can be computed from the mean values of dose activity $\eta_{\text{e.app}}$ and that the method can be employed also for apparatus used for other radiochemical processes. The dependence of the efficiency of the apparatus on the full activity of the gamma radiation source W_0 under exactly constant conditions is mathematically proven. There are 5 figures and 9 references, 6 of which are Soviet.

Card 3/3

BREGER, A.Kh.: Prinimeli uchastnye: VAYNSHTEYN, B.I.; SYRKUS, N.P.;
RYABUKHIN, Yu.S.; KOZLOV, V.A.; KARPOV, V.L., red.; TARAKHOVSKAYA,
N.K., red.; YAZLOVSKAYA, E., tekhn.red.

[Nuclear radiation sources and their application to radio-
chemical processes] Istochniki iadernykh izlucheni i ikh pri-
menenie v radiatsionno-khimicheskikh protsessakh. Pod red. V.L.
Karpova. Moskva, Vses.in-t nauchn.i tekhn.informatsii, 1960.
128 p. (MIRA 13:10)

(Radiation)

(Radiochemistry)

SYRKUS, N.P.

~~SECRET~~

PHASE I BOOK EXPLOITATION SOV/5419

1. Tashkent konferentsiya po mirnomu ispol'zovaniyu atomnoy energii, Tashkent, 1959.

2. Study (Transactions of the Tashkent Conference on the Peaceful Uses of Atomic Energy) v. 2. Tashkent: Izd-vo AN UzSSR, 1960. 149 p. Errata slip inserted. 1,500 copies printed.

Sponsoring Agency: Akademiya nauk Uzbekskoy SSR.

Responsible Ed.: S. V. Starodubtsev, Academician, Academy of Sciences Uzbek SSR. Editorial Board: A. A. Abdullayev, Candidate of Physics and Mathematics; D. M. Abdurazulov, Doctor of Medical Sciences; U. A. Arifov, Academician, Academy of Sciences Uzbek SSR; A. A. Borodulina, Candidate of Biological Sciences; V. N. Ivashev; G. S. Ikramova; A. Ye. Kiv; Ye. M. Arbanov, Candidate of Physics and Mathematics; A. I. Nikolayev, Candidate of Medical Sciences; D. Mashanov, Candidate of Chemical Sciences; A. S. Sadykov, Corresponding Member, Academy of Sciences USSR, Academician, Academy of Sciences Uzbek SSR; Yu. N. Talanin,

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Transactions of the Tashkent (Cont.)

S07/5410

Candidate of Physics and Mathematics; Ya. Kh. Turakulov, Doctor of Biological Sciences. Ed.: R. I. Khamidov; Tech. Ed.: A. G. Babalshanova.

PURPOSE : The publication is intended for scientific workers and specialists employed in enterprises where radioactive isotopes and nuclear radiation are used for research in chemical, geological, and technological fields.

COVERAGE: This collection of 133 articles represents the second volume of the Transactions of the Tashkent Conference on the Peaceful Uses of Atomic Energy. The individual articles deal with a wide range of problems in the field of nuclear radiation, including: production and chemical analysis of radioactive isotopes; investigation of the kinetics of chemical reactions by means of isotopes; application of spectral analysis for the manufacturing of radioactive preparations; radioactive methods for determining the content of elements in the rocks; and an analysis of methods for obtaining pure substances. Certain

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Transactions of the Tashkent (Cont.)

SOV/5410

instruments used, such as automatic regulators, flowmeters, level gauges, and high-sensitivity gamma-relays, are described. No personalities are mentioned. References follow individual articles.

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RADIOACTIVE ISOTOPES AND NUCLEAR RADIATION
IN ENGINEERING AND GEOLOGY

Lobanov, Ye. M. [Institut yadernoy fiziki UzSSR - Institute of Nuclear Physics AS UzSSR]. Application of Radioactive Isotopes and Nuclear Radiation in Uzbekistan

7

Taksar, I. M., and V. A. Yanushkovskiy [Institut fiziki AN Latv SSR - Institute of Physics AS Latvian SSR]. Problems of the Typification of Automatic-Control Apparatus Based on the Use of Radioactive Isotopes

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- Transactions of the Tashkent (Cont.) SOV/5410
- Grober, A. G. [Tsentral'nyy n.-i. institut khlopkovoy promyshlennosti - Central Scientific Research Institute of the Cotton Industry]. Application of the Radioactive Isotopes in the Cotton Industry 73
- Stepanyan, R. A. [Vsesoyuznyy n.-i. institut mekhanizatsii sel'skogo khozyaystva - All-Union Scientific Research Institute for the Mechanization of Agriculture]. Radioactive Methods in Evaluating the Operational Qualities of Motor Oils and Machines 84
- Badalov, N., and H. M. Kamilov [Uzbek State University imeni A. Navoi]. Attenuation of Gamma-Rays by Wool and Cotton 88
- Vaynshteyn, B. I., A. Kh. Beger, and H. P. Syrlau [N.-i. fiziko-tekhnicheskii institut im. L. Ya. Karpova - Physico-technical Scientific Research Institute imeni L. Ya. Karpov]. Design of a Radiation-Chemical Plant With a High-Power Source of Gamma-Radiation for Converting Benzene Into Phenol by Oxidation 90

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- Transactions of the Tashkent (Cont.) SOV/5410
- Breger, A. Kh., V. B. Osipov, and V. A. Gol'din [Fiziko-khimicheskiy institut im. L. Ya. Karpova - Physicochemical Institute imeni L. Ya. Karpov]. Universal Plant With Source of Gamma-Radiation Co⁶⁰ With an Activity of 60,000 g-equiv. of Radium for Simulating Radiation-Chemical Apparatus and Conducting Investigations (K-60,000) 100
- Breger, A. Kh. [Physicochemical Institute imeni L. Ya. Karpov]. Scientific and Technical Principles in Developing Radiation-Chemical Apparatus 107
- Arifov, U. A., S. V. Starodubtsev, Ye. M. Lobanov, G. A. Kleyn, and S. Z. Pashinskiy [Institute of Nuclear Physics AS UzSSR]. Plants of the Academy of Sciences of the Uzbekskaya SSR for Various Gamma-Radiation Studies and Semi-Industrial Experiments 120
- Breger, A. Kh., B. I. Vaynshteyn, L. S. Guzoy, Yu. S. Ryabukhin, and N. P. Syrkus [Physicochemical Institute imeni L. Ya. Karpov]. Absorption of Gamma-Radiation in Macrosystems 123

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SYRKUS, N. P.

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31546
S/081/61/000/022/004/076
B102/B108

AUTHORS: Breger, A. Kh., Vaynshteyn, B. I., Guzey, L. S.,
Ryabukhin, Yu. S., Syrkus, N. P.

TITLE: Gamma-radiation absorption in macrosystems

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 22, 1961, 37, abstract
22B254 (Tr. Tashkentek. konferentsii po mirn. ispol'zovaniyu
atomn. energii. Tashkent, AN UzSSR, v. 2, 1960, 123-132)

TEXT: The gamma radiation energy absorbed by an object is determined as the difference between the γ -radiation energy flux from the source and γ -energy flux passing through the object's surface. An accumulation factor for the energy flux and a useful coefficient of the source with respect to γ -radiation are defined. The energy from Co^{60} (~ 2 g-equ. Ra) absorbed by the object was measured by means of a chemical dosimeter - a ferrosulfate solution filled into volumes of various shapes. The γ -radiation energy flux was also measured by the ferrosulfate method. It was shown that if the source was placed in the center of a cylinder the absorbed energy is twice as high as that when the source is located at the

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Gamma-radiation absorption ...

31516
S/081/61/000/022/004/076
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bottom plane of a cylinder which is half as high. The accumulation factors were calculated by comparing the experimental and theoretical results without taking multiple scattering into account. γ -radiation absorption in volumes of complex shape was studied at various positions of the sources. [Abstracter's note: Complete translation.]

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3/02/60/00/131/06/22/071
3014/3007

Authors: Kravtsov, A. D., Vaynshteyn, L. L., Gusev, L. L., Ryabukhin, Yu. L., Sychev, V. P.

Title: The Absorption of Gamma-emission in Macrocystees From a Point Source

PERIODICAL: Doklady Akademi nauk SSSR, 1960, Vol. 131, No. 6, pp. 1309 - 1311

TEXT: The authors define the absorbed power of γ -emission with $Q_0 = \phi_0 (\phi_{surf} + \phi_{scatt})$, where ϕ_0 is the total power of the energy flux of the γ -emission of the source, and ϕ_{surf} - the power of the flux leaving the absorbing body, and ϕ_{scatt} - the power of the scattered flux. The factor of the accumulation β_0 of the integral energy flux of the γ -emission is defined by $\beta_0 = 1 + \frac{\phi_{surf}}{\phi_0}$ and by the notations $Q_0/\phi_0 = \gamma$, $\phi_{surf}/\phi_0 = \gamma_{surf}$ is obtained for the efficiency $\gamma = 1 - \beta_0 \gamma_{surf}$. For a spherical absorbing body in the center of which the source is located, γ may easily be written down. For a cylindrical body (Fig. 1) the

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best series, in which dosimetric solutions were located in cylindrical containers with different radii. In a copper tube, which was fitted to the cylinder axis, the γ -source could be moved from without. Measured values for five different cylinder diameters within the range of from 5 to 12 cm are graphically represented in Fig. 3. It is found that the relation $\beta_0^2 = \beta_0^2(r, r_0)$ holds, where β_0 denotes the height of the cylinder calculated from the source, r - the radius of the cylinder, r_0 - the radius of the container. The coefficient of the γ -emission in the substance (β_0) is that it is possible to determine of the amount of the absorbed energy, but also the above introduced factor of the accumulation of the integral energy flux. This factor may be used also in investigations of the absorbed energy which are carried out with other configurations of the source or of the absorbing object. The authors thank N. A. Kravtsov and Ye. B. Kaluzhskaya for their help in performing this work. There are 4 figures and 12 references, 9 of which are Soviet.

ASSOCIATION: Nauchno-Issledovatel'skiy fisiko-khimicheskiy institut im. L. Ya. Karpova (Scientific Research Institute of Physics and Chemistry imeni L. Ya. Karpov)

Card 2/3

Chemistry imeni L. Ya. Karpov

PRESENTED: December 17, 1959, by V. A. Kargin, Academician

SUBMITTED: December 16, 1959

Card 3/3

PETROV, N.A., red.; PETRENKO, L.I., red.; SAVITSKIY, P.S., red.; SINITSIN, V.I., red.; KOLOTYRKIN, Ye.M., red.; SYRKUS, N.P., red.; ROMM, R.F., red.; ANTYASHEV, P.I., red.; VARTAZAROV, S.Ye., red.; ZAYTSEV, A.I., red.; ZEZYULINSKIY, V.M., red.; ZEDGINIDZE, G.A., red.; MARTYNKIN, F.F., red.; ROGACHEV, V.I., red.; SLATINSKIY, A.N., red.; LEVINA, Ye.S., vedushchiy red.; TITSKAYA, B.F., vedushchiy red.; PERSHINA, Ye.G., vedushchiy red.; IONEL', A.G., vedushchiy red.; ZARETSKAYA, A.I., vedushchiy red.; MUKHINA, E.A., tekhn.red.

[Transactions of the Conference on the Introduction of Radioactive Isotopes and Nuclear Radiation into the National Economy of the U.S.S.R.] Trudy Vsesoiuznogo soveshchaniia po vnedreniiu radioaktivnykh izotopov i iadernykh izlucheni v narodnoe khoziaistvo SSSR. Pod red. N.A.Petrova, L.I.Petrenko i P.S.Savitskogo. Moskva, Gos.nauchno-tekhn.izd-vo nef. i gorno-toplivnoi lit-ry. Vol.1. [General aspects of isotope applications. Instruments with sources of radioactive radiation. Radiation chemistry. Chemical and petroleum refining industry]

(Continued on next card)

PETROV, N.A.---(continued) Card 2.

Obshchie voprosy primeneniia izotopov. Pribory s istochnikami radioaktivnykh izlucheni. Radiatsionnaia khimiia. Khimicheskaiia i neftepererabatyvaiushchaia promyshlennost'. 1961. 340 p. Vol.2. [Construction and the industry of construction materials. Light industry. Food industry and agriculture. Medicine] Stroitel'stvo i promyshlennost' stroitel'nykh materialov. Legkaia promyshlennost'. Pishchevaia promyshlennost' i sel'skoe khoziaistvo. Meditsina. 1961. 267 p.

(MIRA 14:4)

1. Vsesoyuznoye soveshchaniye po vnedreniyu radioaktivnykh izotopov i yadernykh izlucheni v narodnoye khozyaystvo SSSR. Riga, 1960.

(Radioisotopes)

(Radiation)

Vsesoyuznoye soveshchaniye po vnedreniyu radioaktivnykh izotopov i yadernykh izlucheni v narodnoye khozyaystvo SSSR. Riga, 1960.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001654310010-0

Radioaktivnyye izotopy i yadernyye izlucheniya v narodnom khozyaystve SSSR; Obshchie voprosy primeneniia izotopov, pribory s istochnikami radioaktivnykh izlucheni. Radiatsionnaia khimiia, khimicheskaya i neftepererabatyvaiushchaya promyshlennost' (Radio-khimiya, khimicheskaya i neftepererabatyvaiushchaya promyshlennost' (Radio- active Isotopes and Nuclear Radiations in the National Economy of the USSR; Transactions of the Symposium in 4 Volumes. v. 1: General Problems in the Utilization of Isotopes; Instruments With Sources of Radioactive Radiation; Radiation Chemistry; the Chemical and Petroleum Refining Industry) Moscow, Gostoptekhizdat, 1961. 340 p. 4,140 copies printed.

Sponsoring Agency: Gosudarstvennyy nauchno-tekhnicheskii komitet Soveta Ministrov SSSR, and Gosudarstvennyy komitet Soveta Ministrov SSSR po ispol'zovaniyu atomnoy energii.

Ed. (Title page): N.A. Petrov, L.I. Petrenko and P.S. Savitskiy; Eds. of this Vol.: L.I. Petrenko, P.S. Savitskiy, V.I. Sinitsin, Ye. M. Kolotyrkin, N.P. Syrkina and R.F. Romm; Executive Eds.: Ye. S. Levina and B. F. Titskaya; Tech. Ed.: E.A. Mukhina.

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Radioactive Isotopes (Cont.)

807/5486

PURPOSE: The book is intended for technical personnel concerned with problems of application of radioactive isotopes and nuclear radiation in all branches of the Soviet economy.

COVERAGE: An All-Union Conference on problems in the introduction of radioactive isotopes and nuclear radiation into the national economy of the Soviet Union took place in Riga on 12-16 April 1960. The Conference was sponsored by: the Gosudarstvennyy nauchno-tekhnicheskii komitet Soveta Ministrov SSSR (State Scientific and Technical Committee of the Council of Ministers, USSR); Glavnoye upravleniye po ispol'zovaniyu atomnoy energii pri Sovete Ministrov SSSR (Main Administration for the Utilization of Atomic Energy of the Council of Ministers, USSR); Academy of Sciences, USSR; Gosplan USSR; Gosudarstvennyy komitet Soveta Ministrov SSSR po avtomatizatsii i mashinostroyeniyu (State Committee of the Council of Ministers, USSR, for Automation and Machine Building) and the Council of Ministers of the Latvian SSR. The transactions of this Conference are published in four volumes. Volume I contains articles on the following subjects: the general problems of the Conference topics; the state and prospects of development of radiation chemistry; and results and prospects of applying radioactive isotopes and nuclear radiation in the petroleum refining and chemical industries. Problems of designing and manufacturing instruments which contain sources of radioactive radiation and are used for checking and automation of technological processes are examined, along with problems of accident prevention in their use. No personalities are mentioned. References accompany some of the articles.

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SOV/5486

Radioactive Isotopes

Korablev, L.N. Specifications of Tubes and Cold Cathodes

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RADIATION CHEMISTRY

Breger, A. Kh. Sources of γ -Radiation for Radiation-Chemical Apparatus

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Syrkus, N.P., A.Kh. Breger, and B.I. Vaynshteyn. Basic Technological Characteristics of a Potential Apparatus for Carrying Out Radiation Polymerization of Ethylene on an Industrial Scale

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184

Dzhagatspanyan, R.V., V.I. Zetkin, G.V. Motsarev, and M.T. Filippov. Chlorination of Silicon-Containing Monomers and Polymers Under the Action of γ -Radiation

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SYRKUS, N.P.

30621

S/001/62/000/009/019/075
B158/B101

5.4600

AUTHORS: Topchiyev, A. V., Polak, L. S., Chernyak, N. Ya.,
Glushnev, V. Ye., Glazunov, P. Ya., Vereshchinskiy, I. V.,
Syrkus, N. P., Bruger, A. Kh., Vaynshteyn, B. I.

TITLE: Radiation-heat cracking of hydrocarbons

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 9, 1962, 74 - 75,
abstract 9B513 (Sb. "Radioakt. izotopy i yadern. izlucheniya"
v nar. kh-ve SSSR. v. I". M., Gostoptekhnizdat, 1961, 206-210).

TEXT: The low overall yield of radiolysis products from hydrocarbons at room temperature points to the absence of a chain reaction at that temperature. To examine the possibilities of a chain reaction in radiation cracking, n-heptane was irradiated by Co^{60} γ -rays at high temperatures. The samples were irradiated in 15 ml bulbs made of molybdenum glass with a wall thickness of ~1 mm. The amount of liquid heptane was 0.25 ml and the pressure in the ampoules on vaporization 2.5 T/273 atm. To prevent local preheating of the walls, the bulb was rotated twice a second. The

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Radiation-heat cracking of hydrocarbons

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B150/B101

radiation dose output calculated on 1 ml of liquid n-heptane was $2 \cdot 10^{13}$ Mev/sec. It is shown that radiation-heat cracking of n-heptane occurs at considerably lower temperatures than purely thermal cracking which needs a temperature of $\sim 500^\circ\text{C}$. The yield of liquid unsaturated hydrocarbons from radiation-heat cracking increases from 1.8 at room temperature to 340 at 450°C . The total radiation-chemical yield of low molecular hydrocarbons is 2000 at 400°C , being therefore $\sim 10^3$ times as great compared with the radiation-chemical yield of the same products at 200°C . By combining the radiation effect with temperature it is possible to obtain products which offer industrial interest at levels of yield which would be acceptable in practice. Possible sources of radiation for radiation-heat cracking are considered. [Abstracter's note: Complete translation.]

Card 2/2

VAYNSHTEYN, B.I.; BREGER, A.Kh.; SYRKUS, N.P.

Spent fuel elements as sources of gamma rays in radiochemical
apparatus. Khim.prom. no.9:651-652 S '62. (MIRA 15:11)
(Gamma rays) (Radiochemistry)

S/138/62/000/012/009/010
A051/A126

AUTHORS: Khozak, V. K., Vaynshteyn, B. I., Breger, A. Kh., Kaplunov, M. Ya.,
Syrkus, N. P.

TITLE: Calculations of a radio-chemical equipment emitter for tire vulcani-
zation using gamma radiation of spent heat-emitting sectors from
a nuclear energy reactor.

PERIODICAL: Kauchuk i rezina, no. 12, 1962, 26 - 29

TEXT: Physical calculations were carried out on an emitter for radio-
vulcanization of tires, using as the gamma source spent heat-emitting sectors,
TBC (TVS), of a nuclear energy reactor. The efficiency coefficient (e.c.) of
the γ -emitter is about 1% (at self-absorption in TVS - 60%). The use of various
heat-emitting elements instead of TVS increases the equipment output by about 5
times. Using the TVS as the gamma source, which is the "waste product" of the
reactor, increases the economic efficiency of the nuclear energy reactor. The
calculations are based on the use of the TVS in the nuclear energy reactor with
a thermal power of 760 Mw. The emitter chosen consisted of surfaces composed

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Calculations of a radio-chemical equipment...

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A051/A126

of TVS. Over a period of 180 days, the average activity of the emitter was found to be $\sim 10^7$ g-equiv. radium. Mathematical calculations showed that at a permissible non-uniformity of the field of dosages of $\pm 15\%$, the ratio of the average absorbed dosage for the characteristic points to the lowest dosage absorbed is $\frac{D_{\text{aver}}}{D_{\text{min}}} = 1.10 \div 1.15$. The average power of the absorbed dosage during the working time of one series of TVS (180 days) was found to be 170 rad/sec. Calculations using heat-emitting elements as gamma source formed in the disassembly of the TVS showed that in this case the e.c. for gamma emission can be increased by about 5 times which is explained by the considerable drop on the self-absorption of the gamma-emitting sources. There are 5 figures. ✓

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti i nauchno-issledovatel'skiy fiziko-khimicheskiy institut im. L. Ya. Karpova (Scientific Research Institute of the Tire Industry and Scientific and Research Physico-Chemical Institute, im. L. Ya. Karpov)

Card 2/2

KARPOV, V.L.; BREGER, A.Kh.; YEROSHOV, M.Ye.; DROZDOV, V.Ye.; LISOV, G.N.;
STOYENKO, S.G.; TORGOVITSKIY, D.M.; VAYNSHTEYN, B.I.; SYRKUS, N.P.

Large-scale radiation-chemistry plant with irradiator made from
spent nuclear fuels. Atom. energ. 15 no.4:302-308 O '63.
(MIRA 16:10)

SYRKUS, N. P.

L 12/21-63

EW(m)/BDS AFFTC/ASD

ACCESSION NR: AP3001414

S/0020/63/150/004/0866/0869

63
57

AUTHOR: Breger, A. Kh.; El*tekov, V. A.; Terent*ev, B. M.; Vaynshteyn, B. I.;
Cyrkus, N. P.; Krasnoshchekova, N. A.; Osipov, V. P.; Gol*din, V. A.

TITLE: Absorption of Gamma-radiation ¹⁹ energy in macrosystems.

SOURCE: AN SSSR. Doklady, v. 150, no. 4, 1963, 866-869

TOPIC TAGS: absorption of energy of Gamma-radiation, Type K-60000 apparatus

ABSTRACT: The energy coefficient of net efficiency of Gamma-radiation, and the value of the cumulative factor of integral current capacity of Gamma-radiation were determined for model apparatus of heat exchanger and tubular, still-type pipe. These determinations were obtained by three non-related methods: statistical method of investigation by an electronic computer, experimental method, and calculation by a semiempirical method. The results based on 300 samples are quite representative. The life span of a single quantum for the heat exchanger was found to be 4 sec. and for the still-type pipe, it was 2 sec. Calculations were also made for other values of energy coefficients of net efficiency. The integral absorption capacity for the given models were determined experimentally by ferrosulfate dosimetry method. The satisfactory agreement of the results

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ACCESSION NR: AP3001414

with all three methods confirms the validity of the program and the methods of calculation. A possibility exists for a tangible method of solution of the problem for an optimum construction of an apparatus and the optimum number and activity of the radiation source. "The authors express their gratitude to Voropayev, Yu. V., Ratov, A. B., Kasatkin, V. M., Kalmykova, Ye. D., and Shalyapin, N. K. for their help in conducting the experiments on the type K-60000 unit, as well as to Golenko, D. I. for a number of useful hints in programming this work. Orig. art. has: 2 tables, 2 graphs and 1 figure.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physico-Chemical Institute)

SUBMITTED: 03May62

DATE ACQ: 01Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 008

OTHER: 000

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SYRKUS, N.P.

Effect of irradiation techniques on the effectiveness of radiation-
chemical processes. Dokl. AN SSSR 152 no.5:1185-1188 0 '63.
(MIRA 16:12)

1. Fiziko-khimicheskiy institut im. L.Ya.Karpova. Predstavleno
akademikom S.S.Medvedevym.

ACCESSION NR: AP4012181

S/0191/64/000/002/0003/0006

AUTHORS: Abkin, A. D.; Auer, A. L.; Breger, A. Kh.; Vaynshteyn, B. I.; Voropayev, Yu. V.; Gol'din, V. A.; Gromov, V. P.; Osipov, V. B.; Sy*rkus, N. P.; Ushakov, V. D.; Khomikovskiy, P. M.; Tsingister, V. A.; Chikin, Yu. A.

TITLE: Radiation polymerization of ethylene in enlarged laboratory apparatus.

SOURCE: Plasticheskiye massy*, no. 2, 1964, 3-6

TOPIC TAGS: ethylene, radiation polymerization, reactor design, reactor surface area, reaction rate, polymer yield, reactor temperature field

ABSTRACT: Radiation polymerization of ethylene was conducted in laboratory reactors of 1-2 liter capacity (fig. 1 & 2). Based on tolerances admitted in this work, it was found that the temperature field can be calculated with sufficient accuracy. Comparison of reaction rates and yield of ethylene polymer shows that these factors are independent of the specific surface of the reaction space. Thus

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ACCESSION NR: AP4012181

Commercial scale apparatus can be designed by estimating the pro-
rate and yield dependence on pressure, temperature and dosage
rate without concern for specific surface area of the reactor.
Orig. art. has: 1 Table and 5 Figures

ASSOCIATION: None

SUBMITTED: 00

DATE ACQ: 26Feb64

ENCL: 02

SUB CODE: MA

NR REF SOV: 005

OTHER: 003

Card

2/42

AP401716

S/0158/64/000/002/0020/0025

AUTHORS: Kozak, V. K.; Vaynshteyn, B. I.; Krasnoshchekova, N. A.; Bregan, A. Ya.;
 Likhov, R. Ya.; Syrkus, N. P.

TITLE: Design of a setup for radiation vulcanization of tires with the use of Co⁶⁰
 Gamma radiation

SECTION: Kaucank 1 rezina, no. 2, 1964, 20-25

TOPIC TERMS: radiation vulcanization, tire vulcanization, cobalt 60, Gamma
 radiation, biplanar radiator, efficiency

ABSTRACT: The authors have designed three variants of a setup to effect radiation
 vulcanization of tires (260-20 and 6.70-15) with Co⁶⁰ Gamma radiation. The
 variants were: 1) a setup with one biplanar radiator of constant size (130 x 130
 cm, 40 cm apart); 2) a setup with one biplanar radiator of different size for each
 (same as 1 for the 260-20 tire; 100 x 100 cm, 40 cm apart for the 6.70-15 tire);
 and 3) a setup with two biplanar radiators of constant size for each (the size of
 1 for the 260-20 tire; the size of the second radiator in 2 for the 6.70-15 tire).
 The efficiency of each variant was computed according to the formula $\eta = \frac{100 \text{ Wabs}}{W_0}$

Cont 1/2

ACQUISITION NR: AP4017164

P_0 = the power of the gamma-ray source and $W_{abs} = P_{min} \cdot v \cdot d$ (P_{min} is the minimal radiation dose, v is the volume of the irradiated object, and d is the density of the irradiated object). The efficiency of all three variants for the 260-tire proved to be 2.8. For the 6.70-15 tire, the efficiency of the first variant was 0.7, for the second and third, 1.3. The authors' computations have shown that for the duration of vulcanization adopted (22 hours for the 260-tire and 19 hours for the 6.70-15 tire), it was necessary to have a radiator with a total activity of $\sim 10^6$ gram-equivalents of radium. The use of a press form of aluminum alloy with walls no thicker than 15 mm permitted the productivity of the setup (with the activity indicated) to be almost doubled. Orig. art. has: 1 figure, 1 table, and 2 formulas.

ASSOCIATION: Nauchno-issledovatel'skiy fiziko-khimicheskiy institut im. L. Ya. Karpova (Scientific Research Physical-Chemical Institute); Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Scientific Research Institute of the Tire Industry)

SUBMITTED: 00

DATE ACQ: 23Mar64

ENCL: 00

SUB CODE: MA

NO REF SOV: 005

OTHER: 002

Card 2/2

SYRKUS, N.P.

Some engineering and physical problems in the development of
radiochemical apparatus. Khim. prom. no.2:134-141 F '64.
(MIRA 17:9)

AVERBUKH, B.S.; ABRAMOVA, L.V.; BREGER, A.KH.; VAYNSHTEYN, B.I.; GOL'DIN, V.A.;
KOCHESEKOV, K.A.; SYRKUS, N.P.; SHALYAPIN, N.K.; SHEVERDINA, N.I.

Determination of the optimum conditions for the reaction of radiation-
chemical synthesis of dibutyltin dibromide. Zhur. fiz. khim. 38 no.10:
2445-2448 0 '64. (MIRA 18:2)

1. Fiziko-khimicheskiy institut imeni L.Ya. Karpova.

ALSHINBAYEV, M.R.; AMELIN, V.P.; ANDRIANOVA, O.V.; GASIYEV, Zh.;
DEGRAF, G.A.; INKARBEKOV, A.B.; KOLOMYTSEV, I.V.; KOLTUSHKIN,
I.S.; MALAKHOV, V.P.; MONASTYRSKIY, A.O.; REZNIKOV, B.N.;
SAKHAROV, I.V.; SENNIK, V.K.; SOSNIN, V.A.; SURKO, V.I.;
SURKOV, Ye.P.; SYRLYBAYEV, S.N.; USIKOV, N.V.; UCHAYEV, A.F.;
SHESTOPALOV, Ye.V.; SHERMAN, R., red.; GOROKHOV, L., tekhn.
red.

[Study manual for a machinery operator] Uchebnik-spravochnik
mekhanizatora. Alma-Ata, Kazsel'khozgiz, 1963. 326 p.
(MIRA 16:12)

1. Alma-Ata, Kazakhskiy gosudarstvennyy sel'skokhozyaystven-
nyy institut. Fakul'tet mekhanizatsii. 2. Sotrudniki fakul'-
teta mekhanizatsii Kazakhskogo gosudarstvennogo sel'sko-
khozyaystvennogo instituta (for all except Sherman, Gorokhov).
(Agricultural machinery)

SYRLYBAYEVA, M.N.

USSR / Human and Animal Morphology (Normal and Pathological).
Lymphatic System.

S

Abs Jour : Ref Zhur - Biol, No 21, 1958, No 97119

Author : Syrllybayeva, M.N.

Inst : Not given

Title : On the Topography of the Lymphatic System of the Serous Membranes of the Human Heart.

Orig Pub : Zdravookhr. Kazakhstana, 1958, No. 4, 54-62

Abstract : 75 complexes of the organs of the thoracic cavity of humans in the ages from 15-80 years were studied. It was shown that in serous membranes of the heart there is a dense, in some places single and in others double, network of lymph vessels (LV). Anastomoses are discovered between both networks of LV along the entire length of the epicardium (E) and pericardium (P). From the network of LV of E and P, efferent valvular and non-valvular LV form. From E of the ventricles, the lymph

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56

ventricles are efferent, right and left tracheobronchial, and pretracheal conglomerates of LN. In E of auricles, LN do not exist. Regional LN for E of auricles are bifurcate and right tracheobronchial LN of the right and left pulmonary arteries, and LN on the walls of superior and inferior vena cava. From P, lymph flows out along numerous LV. Regional LN for P are LN, located along the tracheobronchial tree, as well as LN of the anterior and posterior mediastinum.

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001654310010-0"

Card 2/2

GINZBURG, I.; SYRMAY, A.

Ways to reduce ship repair costs. Mor.flot 7 no.10:29-32 0 '47.
(MIRA 9:6)

(Ships--Maintenance and repair)(Merchant marine--Cost of operation)

SYRMAY, A.

PA 30¹92

USSR/Ships - Construction
Shipbuilding

Oct 1947

"Regulating the Organization of Production," A.
Syrmay, Engr, 4 $\frac{1}{2}$ pp

"Morskoy Flot" No 10

For a more orderly organization of production as the determining factor in normal production of a plant, the following measures must be considered: 1) classification of plants, 2) receiving and preparation of orders, 3) preparation of production, 4) graphic accounting of work, 5) operational planning.

LC

30T92

SYRMAI, A.

IA 1/4/130

USSR/Engineering
Shipping--Development

Apr 48

"Notes on Russian Techniques," A. Syрмаi, Engr, 4 pp

"Morskoy Flot" No 4

First of two articles dealing with Soviet shipping techniques. Presents brief historical account of important advances made by Soviet shipping during past 200 years.

FDB

1/49T30

SYRMAI, A.

TA 1/49T26

USSR/Engineering
Shipping

May 48

"Notes on Russian Techniques," A. Syрмаi,
Engr, 7 pp

"Morskoy Flot" No 5

Conclusion of an article begun in issue No 4.
Gives various improvements in shipping brought
about by Russian effort.

FDB

1/49T26

PA 33/49T53

SYRMAY, A.

Nov 48

USSR/Engineering
Ships, Repair
Ships, Repair Equipment

"Regulating Technological Discipline -- The
Urgent Task of Ship Repair Enterprises,"
A. Syrmay, Engr, 4 pp

"Morskoy Flot" Vol VIII, No 11

Stresses importance of comprehensive preparation
before making repairs on ships. Lists examples
where operations had to be terminated due to in-
efficient pre-repair planning. Suggests greater
use of advanced repair techniques.

33/49T53

FDE

SYRMAY, A.

SYRMAY, A.; OBERMYSTER, A.

Some problems of improving the construction of sea-going vessels.
Mor. i rech. flot 14 no. 4:17-20 Ap '54. (MIRA 7:5)
(Shipbuilding)

SYRMAY, A.

Operational speed of seagoing vessels. Mor. flot 16 no.7:4-9 J1 '56.
(MLRA 9:11)

1. Nauchnyy sotrudnik Instituta kompleksnykh transportnykh problem
Akademii nauk SSSR.

(Merchant ships--Speed)

AUTHOR SYRMAY A. PA - 2734
 TITLE Atomic Energy in Transport. (Institute for Complex Transport Problems, Academy of Sciences of the USSR)
 (Atomnaya energiya na transporte. (v institute kompleksnykh transportnykh problem AN SSSR) -Russian)
 PERIODICAL Atomnaya Energiia, 1957, Vol 2, Nr 4, pp 395-395, (U.S.S.R.)
 Received 5/1957 Reviewed 6/1957
 ABSTRACT In 1955-56 this Institute began with the investigation of those problems which are connected with the construction of atomic power reactors for purposes of transport. The most important problem here is the development of reactors which satisfy the aggravated conditions characterizing the field of transport. The above Institute carried out technological-economic computations on the appropriate computation of atomic ocean vessels with a tonnage of 10,000 to 12,000 tons for general freight and with a tonnage of 25,000 to 30,000 tons for oil and oil products. Two variations of atomic power reactors were investigated: steam turbines and gas turbines. A diagram shows the data of the net cost of the transport of oil and oil products for different types of power reactors-tanker with operation by oil (lubricating oil?), tankers with atomic drive and gas turbine with a performance degree (η) of the device of 0.3 to 0.4. At equal net costs of the transport, the speed of a tanker with gas-turbine atomic power reactor is almost twice as high than the speed of a steam-turbine tanker with operation by oil. If we have to select the method with the lowest net costs we see the following: The net costs for a ves-

Card 1/2

ASSOCIATION

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Card 2/2

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Library of Congress

SYRMAY, A.G., Prinimali uchastiye. ZHURILOV, V.I., mlad. nauchnyy sotr.; KANTOROVICH, Ya.B., kand. tekhn. nauk, retsenzent; VORONOV, Ye.K., glav. ekonomist, retsenzent; OBERMEYSTER, A.M., otv. red.; DOBSHITS, M.L., red. izd-va; SUSHKOVA, L.A., tekhn. red.

[Method of deciding upon the running speed and carrying capacity of seagoing vessels] Metodika obosnovaniia skorosti khoda i gruzopod'emnosti morskikh sudov. Moskva, Izd-vo Akad. nauk SSSR, 1961. 50 p. (MIRA 14:11)

1. Gosudarstvennyy proyektno-konstruktorskiy i nauchno-issledovatel'skiy institut morskogo transporta Ministerstva morskogo flota SSSR (for Voronov). 2. Institut kompleksnykh transportnykh problem AN SSSR (for Zhurilov).

(Naval architecture)

SYRMAY, A.G., nauchnyy sotr.; OBERMEYSTER, A.M., nauchnyy sotr.;
ERONFMAN, A.I., nauchnyy sotr.; SHIMKO, K.N., kand. tekhn.
nauk; PARAKHONSKIY, B.M., kand. ekon. nauk. Prinimali ucha-
stiye: ZHURILOV, V.I., nauchnyy sotr.; ZUBKOV, M.I., nauchnyy
sotr.; SHVARTS, G.L., nauchnyy sotr.; MIKHEYEV, A.P., doktor
tekhn. nauk, prof., otv. red.; BYKOV, I.K., red. izd-va;
DOROKHINA, I., tekhn. red.

[Water and air transportation in capitalist countries: trends in
the development of equipment] Vodnyi i vozdushnyi transport kapita-
listicheskikh stran; tendentsii razvitiia tekhnicheskikh sredstv.
Moskva, Izd-vo Akad.nauk SSSR, 1961. 350 p. (MIRA 15:1)

1. Akademiya nauk SSSR. Institut kompleksnykh transportnykh pro-
blem.

(Merchant marine)

(Aeronautics, Commercial)

S/193/61/000/003/007/009/
A004/A101

AUTHOR: Syrmay, A. G.

TITLE: New marine means of transportation and their development prospects

PERIODICAL: Byulleten' tekhniko-ekonomicheskoy informatsii, no. 3, 1961, 59 - 61

TEXT: In his survey on naval transportation the author mentions the new hydrofoil crafts attaining a speed of 100 km/h. According to the author it is intended to build a considerable number of these craft carrying 100, 300 and 450 passengers. Moreover, he cites two new types of seacraft, transportation submarines and ships moving on an air cushion. He mentions that the former are better suited for the transportation of liquid cargos than surface crafts and points out that the latter are able to attain a speed of 200 km/h. Concerning fuel and power installations the author states that the future development can be divided into two stages. The first stage of about 10 years will see the full conversion of all naval power installations to liquid fuel. During this period the most widespread type of marine power plant will be the two-stroke low-speed diesel engine with gas turbine pressure charging directly coupled to the propeller shafts and having a power of 20.000 - 25.000 hp each. The author presents some basic

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New marine means of transportation and their ...

S/193/61/000/003/007/009

A004/A101

technical data on small-dimensioned marine engines: cylindric power - 2.000 - 2.500 bhp; specific fuel consumption - 145 - 150 g/bhp.h; mean effective pressure - 9.5 - 10.5 kg/cm²; relative weight - 40 - 50 kg/bhp; cylinder diameter - 800 - 900 mm; piston stroke - 1.700 - 1.800 mm; rpm - 110 - 115. According to the author steam-turbine power plants will be used only for power ranges exceeding 25.000 - 30.000 hp where they have certain advantages in comparison with diesel installations. Within the next five to ten years economical gas-turbine marine engines will be produced operating on liquid fuels or atomic propellants. Simultaneously prospective research work is being carried out in the field of direct conversion of chemical or atomic energy into electric power. The overall automation of navigation will make it possible to reduce the crew of ships considerably. The author states that the reconstruction of the naval transport fleet which will be carried out during the next years will make it possible to increase the tonnage of the tanker fleet by 30 - 35% and that of the dry-goods fleet by 45 - 50%, while the labor productivity of the floating stock will increase 2 - 2.5 times. [Abstractor's note: The whole article under the above-mentioned title runs from page 56 to 61. According to request the abstract comprises only the last three paragraphs of page 59 as well as page 60 and 61]. There is 1 figure.

Card 2/2

YERMAKOV, Andrey Pavlovich; SYRMAY, Anatoliy Germanovich;
KLYAUS, Ye.M., red.izd-va; POLENOVA, T.V., tekhn.red.

[Atomic energy and transportation] Atomnaia energiya i
transport. Moskva, Izd-vo AN SSSR, 1963. 149 p.
(MIRA 16:11)

(Transportation, Atomic-powered)

STARSHOV, I.M.; SYRMOLAYEVA, G.P.

Catalytic effect of metals on coking in the pyrolysis of
propane. Nefteper. i neftekhim. no.2:26-29 '64.

(MIRA 17:8)

1. Kazanskiy khimiko-tekhnologicheskii institut im. S.M. Kirova.

COUNTRY : ROMANIA
CATEGORY :
AES. JOUR. : REBIOI., No. 3 1959, No-10195
AUTHOR : Symon, E., Marica, D., Deac, I.
INST. :
TITLE : The Finding of R-Forms of Streptococci in
Strangles of Horses
ORIG. PUB. : Probl. zootehn. Si veterin., 1958, No 4, 30-33
ABSTRACT : No abstract.

CARD: 1/1

F

Syrmus, T. Series with unbounded partial sums in the summability field of a matrix method. Uč. Zap. Tartu. Gos. Univ 42 (1956), 143-151 (Estonian. Russian summary)

1-F.W

The following theorem is known (Mazur and Orlicz, C. R. Acad. Sci. Paris 196 (1933), 32-34; Studia Math. 14 (1954), 129-160; MR 16, 814; K. Zeller, Math. Z 53 (1951), 463-487; MR 12, 604): (i) A conservative matrix method (*) $\lim_n \sum_k a_{nk} s_k$ (sequence-to-sequence-transformation) sums an unbounded sequence if it sums a bounded divergent sequence. One cannot immediately carry over (i) to methods (**) $\sum_n \sum_k a_{nk} u_k$ (series-to-series-transformation), since not every method (**) corresponds to a method (*) [see, e.g., Rechart, Proc. Amer. Math. Soc 2 (1951), 730-731; MR 13, 339]. The author considers the summability field of (**) and certain subdomains of it as *FK*-spaces and gives representations of continuous linear functionals in these spaces. In this way he proves the truth of (i) and certain extensions for methods (**).

2

K. Zeller (Tübingen).

1/1

SYRMUS, T. [Sõrmus, T.]

Some generalizations of Mercer's theorem for double sequences.
Eesti tead.akad.tehm.füüs. no.1:37-49 '62.

1. Tartuskiy gosudarstvennyy universitet.

SYRMUS, T. [Sormus, T.]

A generalized Mercerian theorem. Eesti tead akad tehn fuus 11
no.2:99-106 '62.

1. Tartuskiy gosudarstvennyy universitet.